UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,869	04/30/2001	Charles Chi Jia	10004754-1	4732

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EXAMINER
LAROSE, COLIN M

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *22 July 2004*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1,2,5-8,12-17 and 19-29* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1,2,5-8,12-17 and 19-29* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendments and Arguments

1.   In view of Applicant's amendments dated 22 July 2004, the previous rejections of claims

1, 10, and 12 in paragraph 8 of the Office action dated 22 April 2004, have been withdrawn; also,

the objection of claim 14 in paragraph 2 has been withdrawn.

Applicant's remarks with respect to the newly amended independent claims have been

considered but are moot in view of the new grounds of rejection established below.

Specification

2.   The disclosure is objected to because it contains an embedded hyperlink and/or other

form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or

other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 103

3.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

4.   Claims 1, 2, 5-8, 12-17, 19, 20, and 22-29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 5,140,348 by Jamzadeh et al. ("Jamzadeh '348") in view of U.S.

Patent 5,889,578 by Jamzadeh ("Jamzadeh '578").

Regarding claim 1, Jamzadeh '348 discloses a method for automatically generating a

framed digital image, comprising:

determining at least one frame attribute by applying framing rules to the overall image

characteristics (column 5, lines 10-13: the dominant color ("overall image characteristic") is

selected for inclusion in the frame); and

generating a second data set representing pixels of the framed digital image, the second

data set defining a representation of the unframed digital image surrounded by a frame having

the at least one frame attribute (column 4, lines 28-41: framed image is generated, wherein the

framed portions include the dominant color).

Jamzadeh '348 is silent to the particular analyses (i.e. the four analyzing steps) for

ascertaining the image category and framing the image based on its category.

Jamzadeh '578 discloses a method for determining the category of an image. Specifically,

Jamzadeh '578 discloses:

analyzing a portion of a first data set representing pixels of an unframed digital image so

as to identify a plurality of image components each corresponding to a spatial region of the

pixels (figure 2 – the image is analyzed by at least one template to delineate two image

components A and B);

independently analyzing each of the image components to determine a set of component

characteristics for the corresponding image component (figure 7: the "peripheral region

densities" and the "central region densities" are measured to determine a characteristic of each

component – e.g. the average density of each region – see column 5, lines 34-38);

collectively analyzing the plurality of sets of component characteristics to determine

overall image characteristics indicative of subject matter of the unframed image (figure 7: the

peripheral regions' average densities and the central regions' average densities are compared to

determine overall characteristics (e.g. the overall lightness or darkness) of the image that indicate

whether the image is an outdoor scene or an indoor scene – see column 6, lines 51-54); and

analyzing the overall image characteristics to determine an image category corresponding

to the subject matter (figure 7: the relative lightness or darkness of different colors are analyzed

to determine the specific subject matter of the image – portrait, seashore, sky, etc.).

Thus, Jamzadeh '578 analyzes the image to determine the dominant colors of the image,

which are indicative the subject matter of the image, such as shown in figure 7. See also column

5, line 66 through column 6, line 8.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify Jamzadeh '348 by Jamzadeh '578 to analyze the image to determine the image

category and then frame the image based on the image category, since Jamzadeh '348 discloses

framing an image based on the dominant color of the image, and Jamzadeh '578 teaches that the

dominant color is typically ascertained by the claimed analysis steps and indicates the category

of the image.

Claims 19 and 22 claim the corresponding apparatus and program storage medium of

claim 1, which are obvious combinations of Jamzadeh '348 and Jamzadeh '578 for substantially

the same reasons as recited above for claim 1.

Regarding claim 2, Jamzadeh '578 discloses the analyzing the portion of the first data set

includes:

mapping the pixels to a 2-D image space representative of the rows and columns of the unframed image (column 3, lines 51-63: the image is scanned to form a 2-D image of pixels); and

selecting a region of the 2-D image space for each of the components (see figure 2).

Regarding claim 27, Jamzadeh '578 discloses the region is less than the entire 2-D image space (see figure 2).

Regarding claim 5, Jamzadeh '578 discloses the analyzing the portion of the first data set includes:

mapping the pixels to a 3-D color space for analysis and selecting a region of the 3-D color space for each of the image components (i.e. pixels are in 3-D RGB color space and a region of the color space is selected as the dominant color for each region – see also figure 5).

Regarding claim 6, Jamzadeh '578 discloses the selecting is performed in accordance with a principal component analysis technique (i.e. principal color components – R, G, and B – are analyzed).

Regarding claim 7, Jamzadeh '578 discloses identifying a dominant color of the image component (column 6, lines 1-10).

Regarding claim 8, Jamzadeh '578 discloses the image characteristic is colorfulness indicative of the amount of hue exhibited by the image components (column 5, lines 34-38: the average color indicates the average amount of hue).

Regarding claim 12, Jamzadeh '578 discloses the image category is portrait (see figure 7).

Regarding claim 13, Jamzadeh '348 discloses the framing rules specify a color scheme of similar (i.e. dominant color is selected for the frame, so that the frame color is similar to the color scheme of the image).

Regarding claim 14, Jamzadeh '348 discloses modifying the framing rules prior to the determining (column 5, lines 10-13: logic/control unit 30 can be programmed to any of a number of predetermined relationships).

Regarding claim 15, Jamzadeh '348 discloses sending the second data set to an imaging device for producing the framed digital image (figure 1: processed image is sent to printer for printing).

Regarding claim 16, Jamzadeh '348 discloses the representation of the unframed image is scaled in the framed image (column 3, lines 19-30: user selects the size of the outputted (framed) image).

Regarding claim 17, Jamzadeh '348 discloses the frame attribute is border color (column 4, lines 30-41).

Regarding claim 23, Jamzadeh '348 discloses the framing rules specify a strong intensity (i.e. the framing rules specify a dominant color is used).

Regarding claim 24, Jamzadeh '348 discloses the framing rules specify a flat texture in that the border is composed of a uniform color.

Regarding claim 25, Jamzadeh '348 discloses the framing rules specify 2-D – the frame is a two-dimensional arrangement of pixels.

Regarding claim 26, if the image category cannot be determined per Jamzadeh '578, then the dominant color is used, according to Jamzadeh '348.

Regarding claim 28, Jamzadeh '578 discloses the image components have different

dimensions (see figure 2).

Regarding claim 29, Jamzadeh '348 discloses specifying a color scheme that is different

from the dominant color (i.e. the second, third, or fourth most dominant color is utilized as the

frame color – see column 5, lines 10-14).

Regarding claim 20, Jamzadeh '348 discloses

a memory accessible by the image categorizer, the image categorizer automatically

defining the at least one frame attribute in accordance with at least one framing scheme

parameter stored in the memory (column 5, lines 10-13: the logic/control unit 30 is programmed

to automatically define the frame attribute from a framing scheme parameter, which is simply a

designation of the dominant color, which substantially determines the image category; since the

logic/control unit is programmed, it inherently comprises memory to store program instructions).

5.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jamzadeh '348 in

view of Jamzadeh '578, and furth in view of U.S. Patent 5,600,412 by Connors.

Regarding claim 21, Jamzadeh '348 discloses the memory is writeable (i.e. a program is

written to it), further comprising:

a user interface (45, figure 1) communicatively coupled to the memory for modifying the

image size.

Jamzadeh '348 does not disclose the user interface is for modifying the framing scheme

parameter (i.e. the choice of frame color).

Connors discloses a similar frame generation system (figure 2). In particular, Connors

discloses that a user inputs data on both the size and color preferences (column 6, lines 13-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify Jamzadeh '348 by Connors to achieve the claimed invention by allowing the user to

select the at least one framing scheme parameter (i.e. frame color selection) via a user interface

since Connors shows that such a feature provides the user with direct control over the frame

color.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

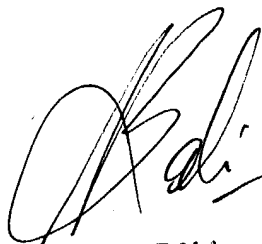examiner should be directed to Colin M. LaRose whose telephone number is (703) 306-3489. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia

Au, can be reached on (703) 308-6604. The fax phone number for the organization where this

application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the TC 2600 Customer Service Office whose telephone number is (703)

306-0377.

CML
Group Art Unit 2623
2 November 2004

VIKKRAM BALI
PRIMARY EXAMINER